

IN THE CLAIMS

1 - 29 (canceled)

30. (previously presented) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity;
integrating the component module into a control sequence; and
coordinating at least a portion of the control sequence based on the time boundary.

31. (previously presented) The method of claim 30, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

32. (previously presented) The method of claim 31, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

33. (previously presented) The method of claim 32, wherein defining the component module comprises time masking the desired pulse to prevent activity temporally conflicting with the desired pulse.

34. (previously presented) The method of claim 30, wherein defining the component module comprises time masking activities of a plurality of components.

35. (previously presented) The method of claim 34, wherein time masking comprises simultaneously time masking independent activities of the plurality of components over at least one activity interval.

36. (previously presented) The method of claim 30, wherein defining the component module comprises providing instructions for defining leading and trailing edges of the time boundary.

37. (previously presented) The method of claim 30, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

38. (previously presented) The method of claim 30, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

39. (previously presented) The method of claim 30, comprising time optimizing acquisition of image data.

40 – 89 (canceled)

90. (previously presented) An image produced by the method of claim 30.

91 – 95 (canceled)

96. (new) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity, including time masking the desired pulse to prevent activity temporally conflicting with the activity; integrating the component module into a control sequence; and coordinating at least a portion of the control sequence based on the time boundary.

97. (new) The method of claim 96, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

98. (new) The method of claim 97, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

99. (new) The method of claim 96, wherein defining the component module comprises time masking activities of a plurality of components.

100. (new) The method of claim 99, wherein time masking comprises simultaneously time masking independent activities of the plurality of components over at least one activity interval.

101. (new) The method of claim 96, wherein defining the component module comprises providing instructions for defining leading and trailing edges of the time boundary.

102. (new) The method of claim 96, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

103. (new) The method of claim 96, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

104. (new) The method of claim 96, comprising time optimizing acquisition of image data.

105. (new) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity, including time masking activities of a plurality of components;

integrating the component module into a control sequence; and

coordinating at least a portion of the control sequence based on the time boundary.

106. (new) The method of claim 105, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

107. (new) The method of claim 106, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

108. (new) The method of claim 107, wherein defining the component module comprises time masking the desired pulse to prevent activity temporally conflicting with the desired pulse.

109. (new) The method of claim 105, wherein time masking comprises simultaneously time masking independent activities of the plurality of components over at least one activity interval.

110. (new) The method of claim 105, wherein defining the component module comprises providing instructions for defining leading and trailing edges of the time boundary.

111. (new) The method of claim 105, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

112. (new) The method of claim 105, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

113. (new) The method of claim 112, comprising time optimizing acquisition of image data.

114. (new) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity, including simultaneously time masking independent activities of a plurality of components over at least one activity interval;

integrating the component module into a control sequence; and

coordinating at least a portion of the control sequence based on the time boundary.

115. (new) The method of claim 114, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

116. (new) The method of claim 115, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

117. (new) The method of claim 116, wherein defining the component module comprises time masking the desired pulse to prevent activity temporally conflicting with the desired pulse.

118. (new) The method of claim 114, wherein defining the component module comprises providing instructions for defining leading and trailing edges of the time boundary.

119. (new) The method of claim 114, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

120. (new) The method of claim 114, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

121. (new) The method of claim 114, comprising time optimizing acquisition of image data.

122. (new) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity, including providing instructions for defining leading and trailing edges of the time boundary; integrating the component module into a control sequence; and coordinating at least a portion of the control sequence based on the time boundary.

123. (new) The method of claim 122, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

124. (new) The method of claim 123, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

125. (new) The method of claim 124, wherein defining the component module comprises time masking the desired pulse to prevent activity temporally conflicting with the desired pulse.

126. (new) The method of claim 122, wherein defining the component module comprises time masking activities of a plurality of components.

127. (new) The method of claim 126, wherein time masking comprises simultaneously time masking independent activities of the plurality of components over at least one activity interval.

128. (new) The method of claim 122, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

129. (new) The method of claim 122, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

130. (new) The method of claim 122, comprising time optimizing acquisition of image data.

131. (new) A method for configuring a control sequence in an imaging system including a plurality of independently controllable subsystems, and control circuitry for commanding activities of the subsystems, the method comprising the steps of:

defining a component module including instructions for executing an activity of at least one subsystem and a time boundary for execution of the activity;

integrating the component module into a control sequence, including coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary; and

coordinating at least a portion of the control sequence based on the time boundary.

132. (new) The method of claim 131, wherein the at least one subsystem includes a coil set for producing a magnetic field in a subject of interest.

133. (new) The method of claim 132, wherein defining the component module comprises providing instructions for producing a desired pulse in the coil set.

134. (new) The method of claim 133, wherein defining the component module comprises time masking the desired pulse to prevent activity temporally conflicting with the desired pulse.

135. (new) The method of claim 131, wherein defining the component module comprises time masking activities of a plurality of components.

136. (new) The method of claim 135, wherein time masking comprises simultaneously time masking independent activities of the plurality of components over at least one activity interval.

137. (new) The method of claim 131, wherein defining the component module comprises providing instructions for defining leading and trailing edges of the time boundary.

138. (new) The method of claim 131, wherein defining the component module comprises facilitating user control of the duration of the time boundary.

139. (new) The method of claim 131, wherein integrating the component module comprises coordinating the time boundary with independent activities and adjusting time gaps between at least a portion of the independent activities based on the time boundary.

140. (new) The method of claim 131, comprising time optimizing acquisition of image data.

141. (new) An image produced by the method of claim 96.

142. (new) An image produced by the method of claim 105.

143. (new) An image produced by the method of claim 114.

- 144. (new) An image produced by the method of claim 122.
- 145. (new) An image produced by the method of claim 131.